

INTERNATIONAL SEARCH REPORT

International application No.

PCT/FI 03/00038

A. CLASSIFICATION OF SUBJECT MATTER

IPC7: F16L 47/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: F16L, B29D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 20014785 U1 (HEWING GMBH), 22 February 2001 (22.02.01)	1-6,9,10, 12-19
Y	--	7,8,10,11,20
Y	GB 1481256 A (TOMIJI TARUKAWA ET AL), 27 July 1977 (27.07.77)	7,8
Y	EP 1031781 A2 (KE-KELIT KUNSTOFFWERK GESELLSCHAFT M.B.H.), 30 August 2000 (30.08.00)	10
Y	US 4979679 A (DOWNS), 25 December 1990 (25.12.90), detail 12	11

☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

8 April 2003

Date of mailing of the international search report

09-04-2003

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 8804388 A1 (TOPO CAP-UNIT A/S), 16 June 1988 (16.06.88), figure 1, details 1,2 --	20
A	EP 0636828 A1 (SEKISUI SCHEMICAL CO., LTD.), 1 February 1995 (01.02.95) -- -----	

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Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

.../...

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

The claims comprise two groups of inventions:

Invention 1: Claim 1 relate to a pipe fitting comprising at least two layers in such a way that the innermost layer is made of a material different from the outer layer, and that the innermost layer is made of plastics. The material of the layers being selected in such a way that the outer layer is not attached to the innermost layer.

Invention 2: Claim 19 relate to a pipe fitting being connected to a plastic composite pipe having a plastic inner layer and a metal layer outside it. The outer surface of the pipe is of metal colour, the colour being provided by using a transparent extruded material upon the metal layer, or in such a way that a surface is extruded upon the metal, which is coloured using pearlescent, metal-coloured or mica pigments.

No same or corresponding special technical features can be identified between these two groups or claims within the meaning of Rule 13.2 PCT. They do not relate to the same technical problem. The claims do not relate to one invention or to a group of inventions so linked as to form a single general inventive concept as required by Rule 13.1 PCT.

INTERNATIONAL SEARCH REPORT
Information on patent family members

29/03/03

International application No.
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Patent document cited in search report			Publication date	Patent family member(s)	Publication date
DE	20014785	U1	22/02/01	NONE	
GB	1481256	A	27/07/77	DE 2532233 A,C FR 2279012 A,B IT 1040971 B JP 936619 C JP 51017905 A JP 53015846 B US 4102972 A	29/01/76 13/02/76 20/12/79 26/12/78 13/02/76 27/05/78 25/07/78
EP	1031781	A2	30/08/00	AT 3469 U AT 32099 A AT 406898 B	25/04/00 15/02/00 25/10/00
US	4979679	A	25/12/90	AU 6542190 A CA 2025687 A WO 9104795 A	28/04/91 30/03/91 18/04/91
WO	8804388	A1	16/06/88	AU 7920087 A DK 579386 A EP 0290481 A	30/06/88 03/06/88 17/11/88
EP	0636828	A1	01/02/95	SE 0636828 T3 AT 170607 T AU 666276 B AU 6867194 A CA 2127954 A CN 1042056 B CN 1103706 A DE 69412943 D,T DK 636828 T JP 2744190 B JP 7083378 A US 5431456 A	15/09/98 01/02/96 09/02/95 31/01/95 10/02/99 14/06/95 14/01/99 02/11/98 28/04/98 28/03/95 11/07/95